AMENDMENTS TO THE CLAIMS:

Please amend the claims as indicated in the marked-up version of the listing of claims presented below. This listing of claims replaces all prior versions and listings of claims in the present application.

LISTING OF THE CLAIMS

1. (Currently amended) An apparatus for creating a molecular array comprising:

a base ;

a Z controller ~~operably connected~~ coupled to the base, wherein the Z controller is selectively positionable along a Z axis relative to the base;

a deposition probe removably ~~and operably connected~~ coupled to the Z controller so that the deposition probe is selectively positionable along the Z axis relative to the base by the Z controller;

an X, Y controller ~~operably connected~~ coupled to the base, wherein the X, Y controller is selectively positionable ~~along an X axis and a Y axis~~ in an X-Y plane independently of movement of the Z controller, the X, Y controller further comprising a deposition substrate ~~operably attached~~ coupled thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being located under the deposition probe; and

an X, Y translation stage ~~operably connected~~ coupled to the base wherein the X, Y translation stage is selectively positionable ~~along an X axis and a Y axis~~ in an X-Y plane, the X, Y translation stage further comprising a loading substrate ~~operably attached~~ coupled thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being located under the deposition probe.

2. (Original) The apparatus of claim 1 further comprising a control computer.

3. (Currently amended) The apparatus of claim 2 further comprising a humidity controller ~~operably attached~~ coupled to the base wherein the humidity controller controls the humidity around the deposition probe.

4. (Currently amended) The apparatus of claim 3 wherein the humidity controller is ~~operably connected~~ coupled to the control computer.

5. (Original) The apparatus of claim 1 wherein the Z controller has an approximately 200 nanometer spatial resolution along the Z axis.

6. (Currently amended) The apparatus of claim 5 wherein the X, Y controller has an approximately 20 nanometer spatial resolution ~~along the X and Y axes~~ in the X-Y plane.

7. (Original) The apparatus of claim 1 wherein the loading substrate further comprises one or more deposition materials deposited thereon.

8. (Currently amended) The apparatus of claim 1 further comprising an optical microscope ~~operably attached~~ coupled to the base.

9. (Original) The apparatus of claim 2 further comprising a force feedback monitor.

10. (Currently Amended) The apparatus of ~~claim 2~~ claim 1 wherein the deposition probe further includes a tip.

11. (Original) The apparatus of claim 10 further comprising a humidity controller, the humidity controller selectively controlling the humidity of the air around the tip.

12. (Original) The apparatus of claim 2 wherein the control computer further comprises a stepper motor control card.

13. (Original) The apparatus of claim 12 wherein the humidity controller further comprises a dry gas source, a humidity source, and a gas flow monitor.

Claims 14-16 canceled.

17. (Currently amended) An apparatus for creating an array comprising:

a Z controller selectively positionable along a Z axis;

a deposition probe ~~operably attached~~ removably coupled to the Z controller, the deposition probe further comprising a tip, the deposition probe selectively positionable along the Z axis by movement of the Z controller;

an X, Y controller ~~operably attached~~ coupled to the Z controller and movable independently of the Z controller; and

a deposition substrate ~~operably affixed~~ coupled to the X, Y controller where the deposition substrate is selectively movable between a first position and a second position and wherein when the X, Y controller moves the deposition substrate to the second position the deposition substrate is positioned under the tip.

18. (Currently amended) The apparatus of claim 17 further comprising:

a control computer ~~operably connected~~ coupled to the Z controller and the X, Y controller;

a force feedback monitor ~~operably affixed~~ coupled to the deposition probe and ~~operably connected to~~ the control computer; and

a humidity controller ~~operably affixed~~ coupled to the Z controller and ~~operably connected to~~ the control computer.

19. (Original) The apparatus of claim 17 further comprising an ozone source for cleaning the deposition probe.

Claim 20 canceled.

21. (Currently amended) An apparatus for creating a molecular array on a deposition substrate comprising:

a base;

a deposition probe removably ~~and operably connected~~ coupled to the base;

an X, Y translation stage ~~operably connected~~ coupled to the base wherein the X, Y translation stage is selectively positionable along the X axis, and the Y axis, the X, Y translation stage further comprising a loading substrate ~~operably attached~~ coupled thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being located under the deposition probe; and

an X, Y controller ~~operably connected~~ coupled to the base wherein the X, Y controller is selectively positionable along the X axis, and the Y axis independently of the X, Y translation stage, the X, Y controller further comprising a deposition substrate ~~operably attached~~ coupled thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being located under the deposition probe.

22. (Previously presented) The apparatus of claim 21 further comprising a control computer.

23. (Currently amended) The apparatus of claim 22 further comprising a humidity controller ~~operably attached~~ coupled to the base wherein the humidity controller controls the humidity around the deposition probe.

24. (Currently amended) The apparatus of claim 23 wherein the humidity controller is ~~operably connected~~ to the control computer.

25. (Currently amended) The apparatus of claim 21 ~~wherein the X, Y, Z controller~~ further comprising a Z controller coupled to the base, wherein the Z controller is selectively positionable along a Z axis, and wherein the Z controller has an approximately 200 nanometer spatial resolution along the Z axis.

26. (Currently amended) The apparatus of claim 25 ~~wherein the X, Y, Z controller has~~ wherein at least one of the X, Y controller and the X, Y translation stage have an approximately 20 nanometer spatial resolution along the X and Y axes.

27. (Previously presented) The apparatus of claim 21 wherein the loading substrate further comprises one or more deposition materials deposited thereon.

28. (Currently amended) The apparatus of claim 21 further comprising an optical microscope ~~operably attached~~ coupled to the base.

29. (Previously presented) The apparatus of claim 22 further comprising a force feedback monitor.

30. (Currently amended) The apparatus of ~~claim 22~~ claim 21 wherein the deposition probe further includes a tip.

31. (Previously presented) The apparatus of claim 30 further comprising a humidity controller, the humidity controller selectively controlling the humidity of the air around the tip.

32. (Previously presented) The apparatus of claim 22 wherein the control computer further comprises a stepper motor control card.

33. (Previously presented) The apparatus of claim 32 wherein the humidity controller further comprises a dry gas source, a humidity source, and a gas flow monitor.

34. (Currently amended) An apparatus for creating an array on a substrate comprising:

a base;

a deposition probe ~~operably attached~~ coupled to the base, the deposition probe further comprising a tip;

an X, Y translation stage ~~operably attached~~ coupled to the base and movable in X and Y directions;

a loading substrate ~~operably affixed~~ coupled to the X, Y translation stage where the loading substrate is selectively movable in the X and Y directions and into ~~an operable~~ a position under the deposition probe;

an X, Y controller ~~operably attached~~ coupled to the base and movable in the X and Y directions independently with respect to the X, Y translation stage;

a deposition substrate ~~operably affixed~~ coupled to the X, Y controller where the deposition substrate is selectively movable by the X, Y controller into ~~an operable~~ a position under the deposition probe; and

a humidity controller, the humidity controller selectively adjusting the humidity around the deposition probe, the X, Y translation stage, and the X, Y controller.

35. (New) An apparatus for creating an array on a substrate, the apparatus comprising:

a base;

a Z controller coupled to the base and movable relative to the base along a Z axis;

a deposition probe removably coupled to the Z controller such that the deposition probe is movable relative to the base along the Z axis;

a loading substrate coupled to the base and movable relative to the deposition probe in an X-Y plane, the loading substrate movable between a first position in the X-Y plane in which the loading substrate is not positioned under the deposition probe and a second position in which the loading substrate is positioned under the deposition probe to allow the deposition probe to pick up material from the loading substrate; and

a deposition substrate coupled to the base and movable relative to the deposition probe in an X-Y plane, the deposition substrate movable between a first position in the X-Y plane in which the deposition substrate is not positioned under the deposition probe and a second position in which the deposition substrate is positioned under the deposition probe to allow the deposition probe to deposit material onto the deposition substrate.